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14 JUN 1966

MEMORANDUM FOR : Director of Central Intelligence
SUBJECT : J-58 Engine Experience and Reliability

1. This memorandum suggests action on the part of the Director of Central Intelligence; this action is contained in paragraph 7.

2. A recent statement attributed to the Secretary of Defense before the Senate Committee on Armed Services may have led to a misunderstanding on the part of the press and the public concerning the J-58 engine. The Secretary's statement as recorded indicated that the most trouble with the SR-71 was with the engine. This statement is shown in Attachment I. Subsequently, Aviation Daily in referencing the Secretary's statement alluded to unspecified difficulties with the J-58 engine. This press release is shown as Attachment II.

3. Office of Special Activities records indicate a minimum of major problems, a minimum of program delays, orderly and expeditious correction of those normal problems naturally involved with a high performance engine development, and a very high level of in-flight reliability associated with the J-58 engine. Total experience with this engine through 30 April 1966 is reflected in Attachment III.

4. The J-58 engine has never caused the loss of an aircraft or a complete power off landing. In-flight reliability of the engine has progressed from 96% in November 1964 to 98% in May 1966. The probability of one engine causing an in-flight abort is 2.7% for the complete flight, and 1.6% for the high Mach, high altitude cruise portion of the flight. These statistics are based upon 3142 engine flights since 1964 and are shown in detail on Attachment IV.

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5. Attachment V shows the current reliability position of the J-58 engine relative to other major systems on the OXCART A-12 operational aircraft. For the engine, a total of 180 operational aircraft flights or sorties were made since August 1965. One hundred eighty of these sorties returned safely as shown by the first barometer for 100%. One hundred seventy eight of these sorties were not aborted as shown by the second barometer for 99%. One hundred seventy four of these sorties reflect completely satisfactory engine performance as shown by the third barometer for 97%. These three degrees of reliability for the engine compare most favorably with the other major systems.

6. Perhaps the Secretary's statement before the Committee on Armed Services was meant to indicate trouble with propulsion but was stated as trouble with the engine. The propulsion system includes both the engine and the Lockheed air inlet as components. Our experience indicates that the Lockheed air inlet and its control system has been the single most important problem pacing the flight development of the A-12 aircraft.

7. It is suggested that the Director may wish to bring this to the attention of the Secretary of Defense.

Walter J. Jack C. Ledford

JACK C. LEDFORD
Brigadier General, USAF
Director of Special Activities

Attachments: 5
As stated

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CONCUR:

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17 JUN 1966

Deputy Director for Science and Technology

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